MINDFRAMES: MEDIA STUDY AT BUFFALO, 1973-1990

JOHN MINKOWSKY RECOUNTS AN INNOVATIVE EXHIBITION OF FILM. VIDEO, SOUND, AND DIGITAL ART INSTALLATIONS AND PROJECTIONS

Between 16 December 2006 and 25 March 2007, the Mind-Frames show at the Zentrum for Knust and Medienteclandogie (ZKM) in Karlsruhe, Germany showeased the careers of seven artists who taught at the Center for Media Study (CMS) at the State University of New York at Buffalo in the 1970s and 80s: James Blue, Tony Courad, Hollis Frameten. Paul Shorits, Steina, Woody Vasolka, and Peter Weibel (the last three of whom served as curators of Mondl'immes: Weibel is now the Director of ZKN; there are further details available at hosting.zkm.de/mindframes_e/ and a full catalog is being prepared for publication by MTI Press). Also represented in the show was the prominent theorist Gerald O'Grady, who created the CMS and brought these founding figures of the so-called "structuralist" and "materialist" meyements together. In his program antes, Peter Weibel likens the influence of the CMS to that of the Baubaux or Black Mountain College, and this statement is not altogether fur-fetched.

The exhibition was unprecedented, not only in conception and execution but also in the sheer scope and variety of materials it offered, and the diverse means by which the museumgeer could engage and interact with them. The show encompassed over 350 hours of work, much of it always accessible to the visitor (with some of it presented an selvedules that changed dully). MindFiames mised many interesting questions about latent possibilities of media exhibition in the contest of the museum and the roles that moving-image curators might play in the new technological architecture of our evolving information environment. It provides a stodel for future work

Steins and Woody Vasnika were the initiators of Mind-Frames. They started nut with three assumptions. First: an all-digital show (with film and video works transferred as necessary). Second: a show that could be controlled from a disfunt location. Third: a show capable of being simultaneously

An Owner's fell of the first two ANN STATEM, districts from 120 feet, to begin the first two feet of Laboratory and Laborat

discreinated worldwide. (The technological aspects are discussed below.) Major additional expertise was required to implement these ideas. It was provided by Robert O'Kane, who provided a cupacious server and database and a particular ecoding system similar to the one utilized in the manufacture of DVDs. MindFrames may have been principally o film and video show, but its execution was almost entirely achieved through the use of computers.

In terms of organization, the Medienmoseum at ZKM was configured into three concentric circuits or rings. Although the functions of the puler and central rines menlapped significantly, that of the inner ring, designed especially for MindFrames, was completely distinct and underliable the most innovative attraction of the show. The Medicininesconis a large space, roughly 40,000 square feet and staly feet high, the perimeter of which, on this occasion, comisted of twenty-one rooms or "sequestered" regions of varying thenensions bousing nutallation works, dedicated and thematically grouped screening rooms with denamic schedules (i.e., changing daily), and a large gallery for photographic and other static works. This was the outer ring that circumscribed the whole exhibition.

THE OUTER RING

From of the galleries or viewing spaces presented more than one artist. There was a Film Room and a separate Video Room, distinguished by the mediam in which the included works migmated; there was also a Document Room where rare interviews with all of the makers were shown and a Music Room presenting video and sound works informed by the musical backgrounds of Steina, Trusy Conrad, and Peter Weibel. Outside each of these moms was a lummous plasma-screen display of the precise schedule-by hour and minute-of what was then on screen, as well as a listing of what would be shown over the remainder of the day. The greatest quantity and range of material were presented in the



The other galleties were allotted to individual artists, with one exception: the birgest of them displayed the photographic and related static visual work of Tons Courad, Holles Frampton, and Peter Weibel. Contrad was represented by Polarold and poster-sized plantagraphs and a larger Plata Corner Works (1976-77), varied configurations of adherent triangular edgepieces by which pictures have traditionally been mounted in photo albums. In the same gallery were five series of blackand-white photographs by Frangaton, including Word Pictures (1962-65), The nostalgia Partfolio (1971), and Statem Studies from Verstable Locumotion (1975), these three infinitely related to his emematic endeavors. Word Pictures, a series of documentary photos each beginning with a different letter of the alphabet, has direct bearing on Zorns Lemma (1970), and The nestalgus Portfolio is made up of the images and texts used in the film nortalgia (1973). Sixteen Studies from Vegetable Locomotion, made with Marion Faller, speed the proto-casemalic works of Endweard Maybridge. Six photographic and rollage works by Peter Weibel were also presented in this space. However conventional this gallery appeared in relation to the rest of the shoe; it was a potent reminder that all of the artists in Mindérances had worked in a carrety of media-

Of the remaining fourteen senarate surrounding callesies, there were two screening spaces for Blue's Ifamm and Super & film and video documentaries about international ctises of famine and disease, and the housing uniblems of the underclasses in Houston, Texas: one for Contad's productions for a weekly cable program, Studio of the Streets (1991-93), impromptu interviews with passers la around Buffalo's Cats Hall on vanious civic assues; one each for a confinners screening of Frampton's Zorus Lemma and modalgra; and one for Woody Vastalka's Studies for Soro Processor

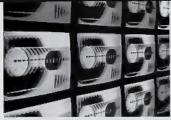
(1974-77), a series of short video experiments using a specialized form of analog synthesizer that he shot directly onto film, Shards's two-screen work, Razor Blader (1965 - digitally reconfigured) shared a room with his film Apparent Mution (1975) which was screened in its original Lifeam format being duily Seven other galleries were given over to installation works, along with seven in the central ring.

THE INSTALLATIONS AND THE CENTRAL RING

Suspended above the central ring and viewed from a tiered space on a halcony, a Grand Vlew- an extraction of the esscarc and preview of MindFrames-occupied a presiding postern. On a panorama of three massive adjacent sergens, excerpts from various works in diverse configurations introduced the viewer to materials displayed in different contexts in the exhibition. They were mustly filled with footage from a single multiple-screen work or appeal odles devised especially for the Grand View.

Stelan and Woody Vasolka

The two most prominent works in the central ring were both by Steing. Albagion was a new realization of a afte-specific piece she has been relashioning over three decades, the recurrent feature a mirrored ball around which pivots a mechanical arouture with a video camera mounted at each and, and with closed-circuit monitors displaying these camera images just beyond. At all finnes, the cameras, by means of the reflective sphere, capture the entire 350-degree surround (hence the title). In the past, Steina has sometimes left the circumambient space unaltered, but here she supplemented the piece with two large graphus of elliptical apherouts suggesting planetary forms.



The Vesulins, Main's Nic 1970-721, Owner of the

The more recent Mynd (2000) is a splendld shechannel projection displayed on six contiguous vertically oriented parels of a large screen about fifty feet wide by twelve freet high. There are four distinct sections to the overall work, each defined by a different aspect of the custoral recinoment of her homeland (including the sea and pastures with house). The images in each section are closely interrelated, varying in rhythm and direction, and their delicate sendering is almost particulty, droplets of water in slow motion suggestive of finely executed broadstrokes.

There were also two collaborations by Sieina and Woody Vasulka, Matrix I and Matrix II (both e. 1970–72). Both were presented on stack of twelve monitors, four wide by three high, displaying related material on loops of horizontally drifting dises to belyingue they iomovated at this time).

Wordy Vimilia's two complex electro-optical installations were staged in "sequestered" spaces, part of the central



Woody Yusuito, Theater of Hydrid Automation 419981, no posture analysis form 439



Woody Yeardur, Serile (1998), detail. Learne and

ring and yet at its far corners. They are Scribe and The Theaster of Hybrid Autumata, from a set of its works collectively ended The Bredherbood first realized in the entirety at the NYT InterCommunication Center in Tokyo is 1998. Both are elaborate kinetic systems of electronic observation built from combinations of cast-off military apparatuses, specially designed mechanical and pnesumatic devices, five surveillance camerus, and computer synthesis tools, all of them untercommunication, Dynamic sculptures that realitedate the spaces



Strine, Myad (2000). According



Stains, Allrisian (2006), and things Taken he and the

they inhabit, they are, by turns, predictable, ambiguous, and indeterminate.

The more accessible of the tou Tables (as Vasulka calls them) was Simbe, which andresses printed language as notation and its electronic transcodification. It is an infrinate automatic electromechanical conselevice of sorts—a serivener of the post-technological age - by which pouted lest on paper is resul by machine. A book, brid flat and open to a page bearing a brief and cryptic statement, is observed by a video camera mounted overhead, and text-recognition software empowers a light-plotting table to write out each word in sequence. The viewer can watch the actual luminous tracing of the letters on this horizontal benefit, see it projected on the scar wall of the space, and hear a topoless computer-generated voice recite the message. The most dramatic component in Scribe, however, is a specially designed bydraulie arm that names the pages of the book by means of a suction cup-like device. When each page of plotted text has evaporated from the seven, this robotic area leaps to life, springs forward in a flash of light, engages the page and flips it over; the effect is statthing at this drange mechanical contraption is counterpoised against a panoply of electronic devices.

The other work, The Theater of Hybrid Automata, is even more claborate, and makes direct use of a military artifact—a motorized gormweapt—certificed in a cubic space, upon which is meanted a video camera that pivots 160 degrees on the horizontal and vertical rives, passing interestites by to map its own orientation in space by means of gnaptic targets. When the ladiced camera has identified the direction in which it is pointed, the camera resumes its programmed movements. A large video-projection seveen lung on the far wall systematically displays combinations of the camera images with computer-generated objects to contain new relationships between "actual" and "virtual" space, or, at other times, purely synthetic models of the construction and its architectual environ.

Peter Weihel

The simplest of Peter Weibel's installations is the droil Possible (1969), a commutum in which the word of the title is discovered to be painted on the screen rather than projected by an empty film projector, which merely serves as a source of illumination.

Weibel's ides-projection work, Way Way Out (1968/2006 reconstruction), extends over the floor, wall, and ceiling, with one of there wide projectors trained on each surface. The vicocer may enter this environment, looking drows, up, and straight ahead at contrapuntal images of nature, urban scenes, and other materials in relationships that often confound or subsert expectations.



Pater Walbel, Way Nay Sut (1968/2006), Instruction

Weibel's two office installations share a common theme. The interactive Kruzifikation der Identitati (1975) is critique of mediated observation. As the viewer staud's on a platform, his or her haloed shadow is reflected on a life-sized cross with a small, untilluminated video screen embedded at the center. When one extends one's arms into a cruciform position, two sensors at the ends of the crossbur trigger a small lens located in the headpiece, and a live video image of the viewer's torso is displayed in that same monitor. One's image is rangh! and transfixed simultaneously by the television camera.

The aura of hight that surrounded the participant in Krustifikation was further intensified by a unlastine lealing from the adjoining from in which was another work about martyidom, this time in a somber, elegac tone. From the far corner of the space, slides of consentuation-camp victures were projected onto a screen of steam about its incluse deep by six feet wide. These compelling and appalling apparations were given an illustry depth when viewed through the derive, wirling base, like dark phantoms conciping from the residue of a pyre. This testament to the bettors of one of history's greatest attactions was poignantly emitted Duruh Show (1969/2006 ecconstruction), and was both a powerful testament to the victims of the Holocaust and a provinceation to question the appropriation of such inflammators material into act.

Tony Courad, Paul Sharits

The outer ring of galleties also housed from other metallation works initially made on film. One room belonged to Tony Constal's Attendation of Boalean Algebra for Pilm Ophicals, a severa-minute looped except from a 1975-film shown on a mounted 16mm projector Trained in statheniatics, Constal complexed in abstract algebraic formula for logical operations to structure the most rigorous of his "Bicker" films. Visually sophisticated, the film is more dependent upon its conceptual framework than the viewer's perceptual discernment of the organizational shape itself, which is as impenebrable to the eye as the mathematical ideas it is based on are to the monospecialist mind. Less unwellight or impact than a work



Poul Shorts Table Deurer (1982), no Charles



Teny Conred in from of the Media Lab, in line (1986) on sparet, sever of EU

like Consud's earlier and evential film, The Flicker (1965). Articulation was one of the most resolutely "structural" works in the exhibition.

Paul Sharits had been allotted three installations: the byo-sergen Razor Blades and Epileptic Seizure Comparison and his spectnetilar triptych for film, Third Degree

Rapar Blades (1965) was Sharits's first multi-screen effort and was not conceived as an installation, but rather as an unconventional brenty-five-minute moviegoing experience; here if became more the object of casual observation than one for seniors contemplation.

Entleppe Selzure Comparison, a 1976 work designed as a double-screen installation - or "locational film piece," as Sharits tenned it-directly addresses the fact that the photic stimulation of flicker filoss can after brainwave patterns in a small number of viewers, actually inducing epileptic convolsizes. Sharits's intention was to simulate, via sound and light. the experience of a convulsive seignre under artificial conditions, an altered state of consciousness that is not, according to his assenteh, without its costatic transports or aesthetic runsifications. Images of patients in the throes of grand malseizures are among the visuals.

Many of Sharits's works, for all their formal, alastrabeauty in the revelation of film's material attributes, are infused with elements of violence. In Third Degree (1982), this destructive impulse is directed at the substance of the celluloid strip itself. Presented on freestanding, optically altered film projectors with synchronized continuous image and sound loops, it displays three images of different dimensions. Color frames hurst and melted by interese heat, and the issue of a soman's face before which a hi match is held, as though she were undergoing a vicious interrogation, radiate from the screen. By tephotographing successively from the smallest to largest screen, this last metaphonically presents third-degree hums, even as the wirman, suggestively being threatened by the flame, is also undergoing the "third degree." An ominous intermittent soundtrack combines the noise of rathornales. and human utterances of resistance to turbure. Hard Degree is radical deconstruction through immolation, disclosing the frangibility of film is a flare of legible beauty

MEDIA LABS IN THE INNER RING

Moving inward from the central sing, the viewer came upon a group of right specially designed Media Lahs, one for each creater. These were like electronic study carrels with specialized collections whereby the work of each individual maker could be explored in depth and at length. Middlemost in each way a Viden Jukehox, a comole with a touch screen from which the visitor could select from more than a dozen complete films or tapes or from archival interviews with the artists, and view them, in full or part, on a time-by-six-bod serces. To the appreliate left as one entered a lab was a anounted computer database that permitted access to a much larger selection of films and tapes as well as a complete biblio ngraphy and fibra/videography, an extensive collection of the artist's writings, and a variety of photographic documents.

Alone the right hand walls of five of the lalis were interaclive stations where one could simulate the creative poactors. or analyze excepts of the work of each artist. For Paul Sharin. the participant was able to equalate the process of creating a flicker film by filling in linear fashion a matrix representing a sequence of frames with either a solid color or symbol, and play them back in sequence, at variable speeds selected by the participant, on a second monitor, it was an elegant, illuminuting, and easy-to-use instrument, as was Stema's, where pressing any mamber on a keypail activated a unique digital transformation of one of several pre-taped sequences in auro similar to those she employs in her works.

Vasulka's and Frampino's stations, by contrast, were designed for the analysis of sequences of specific tapes or films. and were more difficult to use. Particularly resistant was



Counting a Ricker film at the Shorids work station. North Store or Environ Surveyor Da

Frampton's, where, in one mountor, the viewer could manupulate a cube, each aide offering a portion of a different film, and select particular sequences of frames for replay on a secand screen at a variable speed. Compared to the other lab stations, this was the least user-friendly. Vasulka's was more readily comprehended and controlled, allowing one to alter the horsparency and mushes of overlapping video frames. but was rather frustrating as a learning tool. Both could have benefited from design modification, but the attempts were commendable

Finally there was a selection of work by Gerald O'Grady, who over the past thirty years has produced descrit of tabloid catalogues for CMS. His jukebox featured bulf-lusar public lelevision programs contiled Falsa Makers, in which he interviewed thirteen independent makers showing and discussing their worl

DIGITAL TECHNOLOGY

As mentioned, if had been Steina's and Vandler's intention from the outset that the exhibition he presented entirely in digital format. The digital format is unlike film or videotape, in that it has no material base. Digital code is binare data, pure and simple, that can represent all manner of information, including moving images and sound, with an extremely high degree of fidelity and clarity. Digital video has increasingly become the standard for television and Internet Immunission and storage on DVDs, as well in as film production for MindFarmes, both film and analog video had to be reformatted, or compressed and encoded, into digital data, while attempting to minimize any loss of quality or essential component features of either medicare

There are several advantages to transferring film images and rideo signals into digital formats. One is general- unlike film and videotape, both subject to deterioration over time and repeated use, digital information is, essentially, immaterial, that is, pure data which can be stored in a variety of ways. and therefore not subject to corporeal corrugalisitity. Another

is more specific, in this case, to the needs of MindFrames. given the east amount of material included in the exhibition (more than two weeks of round-the-clock viewing) and the desire to have it accessible in the most flexible manner possible, a capacinus server for the digital dutubase was the most pragmatic solution.

Vanilla enlisted Robert O'Kane, who is lasted in Colorne as UNIX Administrator at the Academy of Media Arls, trudesign a technical system—the selection and configurate of necessary server and other instrumentation, and the oversight of the management of the database - whereby this vast quantity of moving image/sound material could be entalurued. accessed, and distributed for exhibitions in multiple ways.

O'Kane, aside from being a knowledgeable and creative designer of computer systems, was, as a former student at CMS, also familiar with the secure of each of the artists, and the naticular aesthetic and theoretical issues with which they had grappled. As one example, the nature of the film and orden frame as the basic unit through which the image is conveyed was of particular concern for Paul Sharits and Woody Vasulka. Both sought to employ the frame to differout ends in the case of Sharlis, to explore the farnial nature and perceptual effects of the rapid fluctuation or flicker of color fields; and for Vastillar, as a menos of investigating the manner in which an electronic signal was registered so that it could be controlled or processed. As it was essential in the digital compression of film and video images to preserve the reproduction of actual frames, O'Kane selected MPEG2, a prevalent standard for broadenst, cable, and DVDs, but one that is rapidly being superseded by vider-streaming on the web as the more consumer transport of Internet minimion. Streaming, lanwever, fails to maintain the convention of the

The server for all of the moving-image outerials was located at Kathruhe, and then managed from the database in Cologue, with O'Kane at the helm, maintaining an uninterrupted flow of information from one site to the other. Cologne was the location of "control central" because it is O'Kane's base of operations but, in pure theory (even if it not as yet practicable), the server could be maintained from any where in the world (even Buffalo).

All of the material had, of course, to be transferred to digital at the outset. This presented no problem to the video artists as both video and digital are electromeally lancel. There was, however, a dehate between filts "purists" and the organizers of Muddinames, the former feeling that the integrity of their medium would be compromised by such a translation. There was little evidence that the fibus in MindFennes soffexed by their digital presentation. But that debute explained

the presence of Stanti's Third Degree is a film installation proper, a resolution that may have compromised Vasulka's notion of total digitality. However, the presence of the film apparatus was a reminder of the brute and beautiful mechanical basis for cinema, its projectors inelegant instruments emitting their sprocketfuls of clatter and other quitta.

But overall, this digital representation and long-distance transmission of film and video in a museum contest was a forward-thinking icelanological breakthrough, pointing the way toward global simultaneous collaboration in the exhibition of the media arts. Vasailka's and Steina's commitment to consimply easting off into uncharted streams of electronic flow, exemplified in MindFames, is unparalleled.

THOUGHTS ON THE FUTURE OF MEDIA EXHIBITION

From my own experience as a cutator/programmer of electranic art, a group show usually explices around a specific topic as the boos on which individual works are assembled, by the pase of MindFrames, the openizing principle was uncommon (although by no means unprecedented), determined by the fortuitous confluence of artists, all with very different hat overlapping aeathetic concerns, in a particular place and time. The work of these eight creators, therefore, did not need to be thematically pigeopholed. Each choice could be based solely on its excellence and representative nature

Of course, the selection of installations in Mandhausses represented a mere fraction of such pieces by the artists who worked in that form. A much larger representation of their (allective materials existed in the galleries, and as one penetrated to un even broader sampling in the inner labs, the enhre exhibition seemed to expand hi something more like cight simultaneous retrospectives than a typical group show.

The exhibition, then, tended toward the inclusive, and although none of the artists was netually given a full retromeetive of their works in projected form, there was no reaon that, technologically speaking, they could not have been O'Kane stated that he could easily have accommodated for more material in the show as it stood, and a larger database could have been mounted and maintained. He noted that, nest time, he would begin with a sixteen-terabyte capacity, roughly thirty times the rize of the memory that was used for MindPratues.

Although the Video Jukeboses in the labs offered a lanited selection, a portion of the process that might loosely be designated as "curatonal," concerning what to watch, how much of it, and in what order, had been relegated to the individual viewer, and this had been applemented by the adjacent databases, which offered an even wider choice. Moreover, the centrality of the enlightening unterview matenals, which constituted a significant portion in the sukebos selection and the exhibition in general, might otherwise have been assigned a subsidiary rule, if not totally excluded, from a show of this nature. It offered a depth and currency, as well as contest, impossible to achieve by other means

Perhaps nothing redefined the content of museum media exhibition so much as these labs themselves, any one of which would have required several days to fully plands A nulebox easily contained at least a full day's worth of concentrated viewing. The writings by the artists made available on the database, generally theoretical and sometimes dense, difficult reading because so uch as new aesthetic enweeps, were a rare resource. Although most had been previously published, they are not, with a few exceptions, available in single collections, and then only partially. These essays allow greater insight into what are sometimes esotene bothes of work. And the singulation/analysis tables had the playful intergeticity more often linked to science museums in their educafive canocities, as well as the scholarly pursoit through close, frame-be-frame examination that is associated with academic film/video study programs.

Like Vasulka's automatu, this was a bybtid, if not mongrel. show, serving well a number of constituencies. From the first encounter. MindFrames was intoxicating, a majestic barragof dazzling strohoscopic energy rendeted large. Later, in the relative senctions of more personal spaces, the plethors of possibilities was intellectually charged and challenging. The installations were esperily displayed, and the quality of falm? video in digital form of the highest order. The exhibition was dense, yet never had any sense of cluster about it, and exch piece was provided more than adequate segregation to permit uninterrupted contemplation. The fault of the slow is that a may have been loss much of a good thing. Viewers may have been sated, gasping for breath, and at the same time from trated at not being able to take it all in. After as days there. I still felt that I had only semiched the surface. That Mind-Frames existed beyond the constraints of the museum itself was a large measure of its significance. The exhibition was itself a work of act, in concept, design, and execution, a createrial trimmely that was appreciated by a wide range of visitors, from the current instate to the pratiable savant.

COHN SUNIDWSEY is an independent curates and offic of the wedle ons.

ABSTRACT As promised or of a Gorman exhibition that greatened, as an immediate digtel lauret 350 hours of film and rates wall, and fourteen entalliations, by eight action, as well as specially designed Neel's Lebs, which included Video billubous, deschares, and work stations ampleting there exists' continue and quantities assessed.

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